

Appendix A

Summary of Management and Monitoring Activities within HMP Management Units

Nov 2004-Dec 2006

Summary of HMP Management and Monitoring Activities, 2004-2006

| Management Unit (MU) | Management Entity ¹ | Management and Monitoring Activities |
|----------------------|--------------------------------|---|
| Agua Hedionda | CDFG | <p>Ongoing management activities included treatment of exotic plants, maintenance of fencing and signage, and trash pick-up. Species specific management activities for 2004-2007 included:</p> <p><u>California gnatcatcher</u>: protocol surveys during Spring 2005 and 2007.</p> <p><u>Belding's savannah sparrow</u>: presence/absence surveys during Spring 2005 by CDFG staff. CDFG contracted with Zembal et. al. for statewide census spring 2006. Published report available.</p> <p><u>Light-footed clapper rail</u>: presence/absences surveys conducted spring and winter all years by Zembal et al. Spring surveys in 2007 included nest searches, nest platform augmentation and other conservation activities. Published annual reports available. In 2004, 5 captive-bred rails were released into the marsh on the inland edge of the inner lagoon.</p> <p>HIGHLIGHTS:</p> <p>Loma Laguna Slope Restoration_ In cooperation with the Carlsbad Watershed Network, California Forestry Service and other entities, the Department initiated coastal sage scrub restoration on the north slope of the Agua Hedionda Lagoon Ecological Reserve. Nonnative plants and trees were removed and replaced with native plants.</p> |
| | AH Lagoon Foundation | <p>Prepare public outreach and educational materials. Raise funds through grants and local donations. Provide information about plants, animals, lagoon ecology, etc at Discovery.</p> <p>HIGHLIGHTS:</p> <p><u>Discovery Center</u>. updated with new educational and historical interpretive panels outside the center.</p> <p><u>Caulerpa taxifolia Eradication Program</u>. In March 2005, AHLF received a \$2,266,000 grant from the Regional Water Quality Control Board to eradicate <i>Caulerpa taxifolia</i> in the Agua Hedionda Lagoon and other coastal waterways. Eradication of <i>Caulerpa taxifolia</i> was formally declared on July 12, 2006 by the California Department of Fish and Game.</p> <p><u>Ecology Exhibit</u>. The AHL Foundation will be partnering with two professors from CSU-San Marcos and their students for a major ecology exhibition, with funding provided by the Metropolitan Water District.</p> <p><u>Native Plant Garden</u>. A native plant garden was planted at the Discovery Center. It was funded by a grant from the Metropolitan Water District, and funding from the City of Carlsbad Community Activity Grant. The project includes an accompanying interpretive trail with signage and brochures.</p> |
| Arroyo La Costa | HOAs | Property-level management |
| Batiquitos Lagoon | CDFG | <p>Ongoing management activities included lagoon dredging, treatment of exotic plants, maintenance of fencing and signage, predator management, and trash pick-up. Species specific management activities for 2004-2007 include:</p> <p><u>California least tern</u>: site preparation including vegetation removal and chick fencing repair. Nesting terns have been annually monitored at this site since 1995. Annual reports summarizing breeding success for this species for each California breeding location are published annually by CDFG.</p> <p><u>Snowy plover</u>: nesting pairs annually monitored since spring of 1994.</p> <p><u>Belding's savannah sparrow</u>: CDFG contracted with Zembal et. al. to conduct statewide survey Spring 2006. Report available.</p> |

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| | | <p><u>Light-footed clapper rail</u>: Zembal et al. perform annual census (often funded through Section 6 grants). Spring surveys in 2007 included nest searches, nest platform augmentation and other conservation activities. Published annual reports available. In 2004 and 2005, 8 captive bred rails were released each year into the marsh to enhance the genetic diversity and viability of this growing subpopulation.</p> <p>California gnatcatcher: CDFG staff conducted protocol surveys all three years.</p> <p>General avian surveys: CDFG staff conducted quarterly avian surveys of the entire lagoon 2004-05 and 2005-06.</p> <p>HIGHLIGHTS</p> <p>Applied for and received funding for acquisition of the Mitsuuchi property.</p> |
| | Batiquitos Lagoon Foundation | <p>Manage volunteer programs to conduct trail repairs, trash pickup, weed removal, and to install interpretive signs, trail markers, and trail barriers. Prepare public outreach and educational materials. Raise funds through grants and local donations. Provide information about plants, animals, lagoon ecology, etc at volunteer-run visitor center.</p> <p>HIGHLIGHTS:</p> <p><u>Restoration</u>. Final planting of a restoration project completed Dec-04). Funded by a \$13,123 community-based grant (Southern California Wetlands Recovery Program).</p> <p><u>Monitoring</u>. Conduct monitoring for clapper rails and nesting least terns.</p> <p><u>Grant Funds</u>. Received \$50,000 from the California Coastal Conservancy for pre-acquisition funding support, to take advantage of various land acquisition and open space/conservation/trail easement opportunities to help complete the trail system and protect sensitive habitats.</p> <p><u>Recognition</u>. On December 12, 2006, REI selected the BLF as the <i>Nonprofit of the Quarter</i>, which includes recognition of the Outreach Resource Center board.</p> |
| Bressi/Carrillo | | Information unavailable |
| Buena Vista Lagoon | CDFG | <p><u>Buena Vista Lagoon Ecological Reserve</u>: Ongoing management activities included treatment of exotic plants, maintenance of fencing and signage and trash pick-up. Species specific management activities for 2004-2007 include:</p> <p><u>Belding's savannah sparrow</u>: CDFG contracted with Zembal et. al. to conduct statewide survey Spring 2006. Report available.</p> <p><u>Light-footed clapper rail</u>: Zembal et al. perform annual census (often funded through Section 6 grants). Spring surveys in 2007 included nest searches, nest platform augmentation and other conservation activities. Published annual reports available.</p> <p>Annual reports available.</p> <p>HIGHLIGHTS</p> <p>CDFG and USFWS are co-Lead Agencies for the Buena Vista Lagoon Restoration Plan pursuant to the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA), respectively. A public scoping meeting was held on April 18, 2007 in preparation of the project's Draft Environmental Impact Report.</p> |

Summary of HMP Management and Monitoring Activities, 2004-2006 *continued*

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| Buena Vista Lagoon <i>continued</i> | BV Lagoon Foundation | <p>HIGHLIGHTS</p> <p>The Buena Vista Lagoon Foundation is assisting with the following projects.</p> <p><u>Proposed restoration project.</u> Buena Vista Lagoon Restoration Project would restore approximately 200 acres of wetland habitat at Buena Vista Lagoon to a predominantly tidal saltwater system (regime). CDFG and the Service will seek public input on topics, issues, and alternatives to be considered in the EIR/EIS during a scoping meeting to be held in April, 2007.</p> <p><u>Proposed development on Buena Vista Lagoon:</u> The BVLF is working to stop a project that could negatively impact the lagoon. The project would be located across South Coast Highway from the Buena Vista Audubon Nature Center. The proposed hotel, restaurant and condominium complex was rejected by a 6-1 vote of the Oceanside Planning Commission October 2006; however, funds are now available to purchase this land and preserve it as permanent open space if the landowner is a willing seller. (CalTrans has made this purchase a priority as mitigation for the coming widening of I-5 across Buena Vista Lagoon.)</p> |
| | BV Audubon Society | <p>Promote nature education, conservation and birding opportunities (field trips and classes) in coastal northern San Diego County. Participate in discussions on numerous land use issues, offering a voice in favor of natural open space and wildlife in North County. Prepare public outreach and educational materials. Raise funds through grants and local donations. Provide information about plants, animals, lagoon ecology, etc at volunteer-run Nature Center. BVAS is involved in the long-term plans now underway to restore and enhance Buena Vista lagoon. Annual reports to National Audubon Society, are presented each year in August and are kept on file in the Nature Center where they are available to the public.</p> <p>HIGHLIGHTS:</p> <p><u>Opportunities for children and adults.</u> Hosted nature open house days, and nature-themed summer art camps. Provided nature walks and talks to more than 2500 schoolchildren in 2006.</p> <p><u>Trail improvements.</u> We expect to have installed soon a small pontoon bridge to complete a nature trail loop in and alongside the lagoon.</p> <p><u>Fundraising for Sherman Property acquisition.</u> Generated \$20,000 in grants and contributions towards the acquisition of the Sherman Property (See Section 3.1.2 in this report).</p> <p><u>Proposed development on Buena Vista Lagoon.</u> See description for Buena Vista Lagoon Foundation above.</p> <p><u>Watershed management plan.</u> BVAS recently submitted a request to the Southern California Wetlands Recovery Project for \$375,400 to prepare a comprehensive Buena Vista Creek Watershed Management Plan, integrating current restoration plans being developed for Buena Vista Lagoon with the upstream creek system. Key actions will include development of a coordinated watershed mapping framework and resource data base from primary and secondary sources, and identification of potential land acquisition, restoration, bioengineering, resource enhancement, and recreational use projects within the watershed.</p> <p><u>Monitoring.</u> BVAS has conducted a monthly bird count of species seen at Buena Vista Lagoon for decades. The results are on file in the Nature Center and available to the public. Our annual reports to National Audubon Society are presented each year in August and are kept on file in the Nature Center and are available to the public.</p> |

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| Calavera | CNLM | <p><u>Calavera Hills Phase II (2006).</u> Only basic on-site activities occurred during the 2005-2006 fiscal year because the CE was not in place until late in the year.</p> <p>2006 ACTIVITY SUMMARY</p> <ul style="list-style-type: none"> • Known locations were surveyed for thread-leaved brodiaea, but none were found. • Established baseline conditions; took photos/notes on all Calavera villages; documented site conditions (trash, itinerant camps, weeds) • Met with client and fence contractor to have pipe gates installed on San Diego Gas & Electric easements • Sought to clear out itinerant camps and inhabitants • Removed large infestations of myoporum, fennel, eucalyptus, and pampas grass |
| | CDFG | <p><u>Carlsbad Highlands Ecological Reserve.</u> Ongoing management activities included treatment of exotic plants, maintenance of fencing, trails, and signage, and trash pick-up. Species specific management activities for 2004-2007 include:</p> <p><u>California gnatcatcher:</u> protocol surveys conducted spring 2004-05.</p> <p><u>Grasshopper sparrow:</u> presence/absence surveys conducted spring 2004-05.</p> <p>General <u>avian</u> survey data was also collected during surveys listed above.</p> <p><u>Thread-leaved brodiaea:</u> presence/absence surveys were conducted in 2004.</p> <p><u>Buena Vista Creek Ecological Reserve.</u> The Sherman property was recently acquired through funding from private sponsors and local, state and federal government sources. The Center for Natural Lands Management has been retained for management of the property and treatments to eradicate exotic species have begun.</p> <p>HIGHLIGHTS:</p> <p>CNLM has established numerous clean-up days for this property. Numerous volunteers helped remove homeless encampment debris and other trash.</p> |
| | Preserve Calavera | <p>Preserve Calavera's mission is to protect and preserve the open space around Mount Calavera and Lake Calavera as habitat for native plants and animals; to promote the use of these areas by a responsible public; to support education and restoration programs; to minimize the adverse effect of development; to promote citizen action on local environmental issues; and to use any lawful means to carry out these objectives.</p> <p>HIGHLIGHTS:</p> <p><u>Sherman Property acquisition.</u> Helped raise \$100,000 towards the acquisition of the Sherman Property (See Section 3.1.2 of this report).</p> |
| Faraday | CNLM | <p><u>Kelly Ranch</u></p> <p>General management: signage and fences (capital improvements), biological surveys, habitat restoration, public services and reporting. Monitoring: plant surveys, bird community surveys and focused surveys for coastal California gnatcatcher</p> <p>2005 ACTIVITY SUMMARY</p> <ul style="list-style-type: none"> • Two pair of coastal California gnatcatchers were detected. • Growth and status of the 100 Orcutt's hazardia that were planted near Cannon Road was monitored. • Regular patrol, site enforcement and trash pickup was conducted to protect the Preserve. |

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| Faraday <i>continued</i> | CNLM <i>continued</i> | <ul style="list-style-type: none"> • Vegetation communities were assessed using CNPS Rapid Assessment protocols. • Non-native species were removed as necessary. • Restoration was coordinated with CDF&G and Planning Systems, Inc. <p>2006 ACTIVITY SUMMARY</p> <ul style="list-style-type: none"> • Three pairs of coastal California gnatcatchers were detected • Located several new western dichondra (<i>Dichondra occidentalis</i>) populations and one new Palmer's grappling hook (<i>Harpagonella palmeri</i>) population • Orcutt's hazardia (<i>Hazardia orcuttii</i>) that were planted near Cannon Road were counted • Regular patrol, site enforcement and trash pickup were conducted to protect the Preserve • Nonnative species were removed as necessary • Photo view point locations were established and photos were taken • Attended several meetings with the HOA and Shea Homes (developer) and continued homeowner communication/education • Restoration was coordinated with Planning Systems, Inc. (the environmental consultant for the Kelly Ranch development) |
| Los Monos | CNLM | <p><u>2006 Carlsbad Oaks North Habitat Conservation Area</u></p> <p>2006 ACTIVITY SUMMARY</p> <p>Only basic on-site activities occurred during the 2005-2006 fiscal year because the Center had not received fee title to the property and because the on-site projects (El Fuerte and Faraday extensions and the CON business park) have not been completed. Accessing the site was difficult and, at times, dangerous. Even though access was difficult, the Center did manage to complete several field and report related tasks.</p> <ul style="list-style-type: none"> • The site was visited several times each month and patrolling activities were conducted. • Photo viewpoints were established for both the CE and fee portions of the preserve and photos were taken at each visit. • A CE binder was prepared that includes the baseline property conditions for the CE including photographs. • Sensitive plant surveys were conducted, specifically for thread-leaved brodiaea (<i>Brodiaea filifolia</i>) and San Diego thornmint (<i>Acanthomintha ilicifolia</i>). Both species were located with Geographic Positioning Systems (GPS) and individuals were counted and noted. • The Center has been coordinating with the USFWS on the establishment of critical habitat and preparation of a USFWS recovery plan and management plan for San Diego thornmint, and one on-site meeting/field survey occurred to assess the on-site San Diego thornmint population and several office meetings between the Center and USFWS staff occurred. |
| | UCSD | <p>HIGHLIGHTS:</p> <p>Restoration Ecology: Conduct stream bank restoration. Fire Ecology: Old-growth and postburn chaparral monitored since a 1982 fire.</p> <p>Field Courses: Site visits by university courses in ecology, human biology, and natural history; facilities are expanding to enhance teaching use. Public outreach: The San Diego Natural History Museum collects plant specimens.</p> <p><u>Selected Research:</u></p> <ul style="list-style-type: none"> • The effects of floral predation on the pollination biology and reproductive success of <i>Yucca whipplei</i>. • Parasite diversity of small mammals in fragmented areas. • Suitability of soils and habitat types for the federally endangered Pacific pocket mouse. |

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| Poinsettia/Aviara | Aviara Master HOA | Information unavailable |
| | Other HOAs | Property-level management |
| Villages of La Costa | CNLM | <p><u>Rancho La Costa</u></p> <p>2005 ACTIVITY SUMMARY</p> <ul style="list-style-type: none"> • 30 pair and a single male coastal California gnatcatcher were observed during bird surveys. Of the 31 CAGN territories, 17 were on properties within the City of Carlsbad, 6 pair were in San Marcos and 8 pair were in the County (La Costa Villages off-site mitigation properties located in the County of San Diego). • Other sensitive bird species were observed, mapped and noted. • Vegetation transects were permanently set up in coastal sage scrub habitat and measurements were taken in the spring of 2005. • 5 vegetation plots were created within the <i>B. filifolia</i> habitat at La Costa Greens and measurements were taken. • Signs were placed where appropriate within the Preserve. • Non-native plant species such as fennel, tamarisk, eucalyptus, castor bean, mustard, acacia and pampas were removed. • Revised and submitted a Preserve Management Plan for the property. • The Center spent considerable time and resources enforcing unwanted trespass. <p>2006 ACTIVITY SUMMARY</p> <ul style="list-style-type: none"> • Bird community surveys were conducted using point counts • Wildlife corridor tracking was completed at several locations within the HCA • The condition of the thread-leaved brodiaea (<i>Brodiaea filifolia</i>) habitat at La Costa Greens was assessed • Focused surveys for thread-leaved brodiaea and San Diego thornmint (<i>Acanthomintha ilicifolia</i>) were conducted. • Pilot studies for ant species composition and distribution were initiated. • A 5 to 6-mile trail system was developed using existing trails. Seven kiosks and about 300 linear feet of post and rail fencing were installed. Trail signs were posted throughout the trail system. • Non-native plant species were controlled or removed • Herbicide experiments were conducted on onion weed (<i>Asphodelus fistulosus</i>) and a herbicide experiment was established to test the effects of specific herbicide treatments on thread-leaved brodiaea • CNLM spent considerable time and resources enforcing unwanted trespass |
| Multiple MUs | CWN | <p>HIGHLIGHTS:</p> <p><u>Watershed Stewards Training.</u> A program to train community stewards to provide public outreach, monitoring and restoration activities for the protection of the natural resources of the Carlsbad Watershed (October 2005).</p> <p><u>Invasive Species Removal.</u> In June 2004, CWN received \$3.96 Million in funding from the State of California Proposition 13 for the Dr. Alan Thum Invasives Removal Project, a three year project to remove the most threatening invasive plant species (i.e. arundo, tamarix, pampas grass, and palms) from the Carlsbad Hydrologic Unit, which includes the HMP planning area. The San Elijo Lagoon Conservancy is coordinating all project tasks and engaging contractors to supplement their own staff and is carrying out the physical, analytical, educational, and administrative tasks.</p> <p>The project removed 280 acres of invasive plant species and mapped an additional 280 acres to be treated with other funds; and planted 55,624 native plants to revegetated select treatment areas. The monitoring component of this project included habitat monitoring, bioassessment sampling, water quality sampling, and the installation of five stream gauges. Outreach efforts educated the public and community leaders about the effects of invasive plants through stakeholder meetings, personal contact with hundreds of landowners, and outreach to school and community groups.</p> |

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| Multiple MUs <i>continued</i> | City Parks and Rec. | <p>The Citywide Trails Program manages and monitors trail improvements, construction and maintenance activities in some of Carlsbad's open spaces that are part of the HMP, and conducts public outreach. This is done primarily by a volunteer group and the City's Parks Maintenance Divisions.</p> <p>HIGHLIGHTS:</p> <p><u>National Public Lands Day Clean-Ups</u>- Held for the past 3 years at Lake Calavera, this has been the most successful clean-up program of Open Space in the City of Carlsbad.</p> <p><u>Lake Calavera Trails Master Plan</u>. In an effort to manage the large City owned lands that have many unofficial trails, a plan is in progress to formally dedicate a trail system and enhance the open space through trail signage, closure of badly eroded trails, interpretive signage, fencing and other management activities.</p> <p><u>Citywide Trail Volunteer Program</u>. Oversee volunteers that work on a monthly basis to improve and construct trails by picking up litter, installing trail signage, repairing erosion, and removing weeds from the trails. Quarterly Trail Volunteer Meetings are held which are open to the public. A schedule is provided on the City's Website</p> <p><u>Trail School</u>. Offered once a year to all trail volunteers, as an opportunity to learn trail safety, correct trail building skills and how to protect the environment and be safe while performing the duties as a trail volunteer.</p> <p><u>Trail Blast</u>. A Fitness program using the City's Trails, but in addition information on trail safety and the trail volunteer program is provided.</p> |

¹ Primary management entities (Preserve Managers) are in bold. CDFG – California Department of Fish and Game. CNLM – Center for Lands Management. CWN – Carlsbad Watershed Network. "Other" – HOAs (other than Aviara HOA) and private open space; generally these were preserved prior to HMP approval.